

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

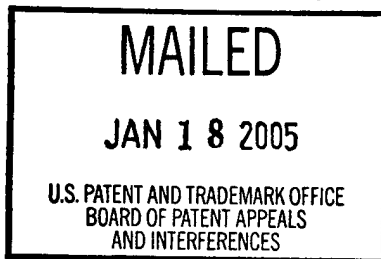
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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte TERRY SI-FONG CHENG and CHING YAO HUANG

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Appeal No. 2004-1492  
Application No. 09/163,396

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ON BRIEF<sup>1</sup>

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Before HAIRSTON, BARRY, and BLANKENSHIP, Administrative Patent Judges.  
BLANKENSHIP, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1-26, which are all the claims in the application.

We reverse.

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<sup>1</sup> Attendance at an oral hearing scheduled for January 27, 2005 has been waived by appellants via facsimile submission (Paper No. 21).

BACKGROUND

The disclosed invention relates to CDMA (code division multiple access) power control for dynamically determining optimum paging and initial traffic channel power to reduce call origination failure. Claim 5 is reproduced below.

5. A mobile switching center of a mobile communication system, the mobile switching center being supplied with indication of pilot signal strength of a pilot signal received wirelessly by a mobile station of the mobile communication system, the mobile switching center comprising:

a controller that determines optimum paging channel power for wireless transmission of a paging message to the mobile station in accordance with the pilot signal strength of the pilot signal.

The examiner relies on the following references:

Ohtake	5,487,180	Jan. 23, 1996
Shen et al. (Shen)	6,118,767	Sep. 12, 2000 (filed Nov. 19, 1997)

Claims 1-26 stand rejected under 35 U.S.C. § 103 as being unpatentable over Ohtake and Shen.

We refer to the Final Rejection (Paper No. 8) and the Examiner's Answer (Paper No. 17) for a statement of the examiner's position and to the Brief (Paper No. 13) for appellants' position with respect to the claims which stand rejected.

OPINION

Appellants' specification describes call origination failure in conventional CDMA mobile communication systems. The CDMA systems are described as utilizing at least paging and traffic channels. (Spec. at 1-3.) Appellants' preferred embodiment, described at the bottom of page 3 et seq., comprises a CDMA mobile communication system that determines optimum paging channel power in accordance with the pilot signal strength of a pilot signal received at the mobile station.

The examiner offers Ohtake in combination with Shen as evidence of prima facie obviousness, under § 103, of all the instant claims. Appellants argue, inter alia, that the references fail to disclose or suggest determining optimum paging channel power in accordance with the pilot signal strength of a pilot signal, which is a requirement of each claim on appeal.

The statement of the rejection (Answer at 3-4) asserts that Ohtake teaches the feature in controversy, but does not point out where the teaching may be found. However, it is apparent that the rejection takes the "down control channel" signal strength of Ohtake (Fig. 12A) as corresponding to the claimed pilot signal strength.

Ohtake relates to a "digital mobile telephone system" (col. 1, ll. 12-15). We do not find, and the rejection does not point out, express description of a pilot signal. We understand that in a CDMA cellular telephone system, each cell-site (or base station) transmits a pilot signal that is used by the mobile units to obtain initial system synchronization and to provide time, frequency, and phase tracking of the cell-site

transmitted signals. Consistent with appellants' description in the specification, the pilot signal is separate, and distinct in function, with respect to control (e.g., paging) or traffic (e.g., voice) channels. See, e.g., U.S. Patent 5,101,501 (Gilhousen et al.), col. 3, l. 45 - col. 4, l. 9. We further note that references of record (submitted with appellants' Information Disclosure Statement filed March 20, 2002), at least PCT Publication WO 97/47094 and the IEEE paper authored by Seung Jong Park et al., describe pilot signals as used in CDMA systems.

The inherent teaching of a prior art reference, a question of fact, arises both in the context of anticipation and obviousness. In re Napier, 55 F.3d 610, 613, 34 USPQ2d 1782, 1784 (Fed. Cir. 1995) (citing In re Grasselli, 713 F.2d 731, 739, 218 USPQ 769, 775 (Fed. Cir. 1983)). When a reference is silent about an asserted inherent characteristic, such gap in the reference may be filled with recourse to extrinsic evidence. Continental Can Co. v. Monsanto Co., 948 F.2d 1264, 1268, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991).

The examiner has not provided evidence in the form of an additional teaching reference, nor even offered any reasoning, to show that the channels described by Ohtake are synonymous with, or necessarily include, a pilot signal in accordance with the instant claims. Our reviewing court has set forth particular standards for showing inherency.

To establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary

skill." "Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient."

In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999)  
(citations omitted).

In any event, Ohtake also describes an "up control channel" (col. 10, ll. 22-37; Fig. 12B) transmitted from the mobile station to the base station. The disclosure thus indicates that a pilot signal is not necessarily included in the control channels described by the reference, since we have no evidence before us that a mobile station transmits any kind of pilot signal to a base station.

Because the rejection fails in showing facts necessary for a prima facie case of obviousness, we do not sustain the § 103 rejection of claims 1-26.<sup>2</sup>

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<sup>2</sup> A cursory text search of U.S. patent documents available at the USPTO web site reveals that at least 212 patents contain both of the terms "CDMA" and "pilot signal strength." Pilot signal strength appears to have been extensively used in hand-off procedures of mobile communication equipment with respect to adjacent cells. The examiner should search and consider the prior art that specifically relates to pilot signal strength.


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## CONCLUSION

The rejection of claims 1-26 under 35 U.S.C. § 103 as being unpatentable over Ohtake and Shen is reversed.

REVERSED

  
KENNETH W. HAIRSTON  
Administrative Patent Judge

  
LANCE LEONARD BARRY  
Administrative Patent Judge

  
HOWARD B. BLANKENSHIP  
Administrative Patent Judge

BOARD OF PATENT  
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